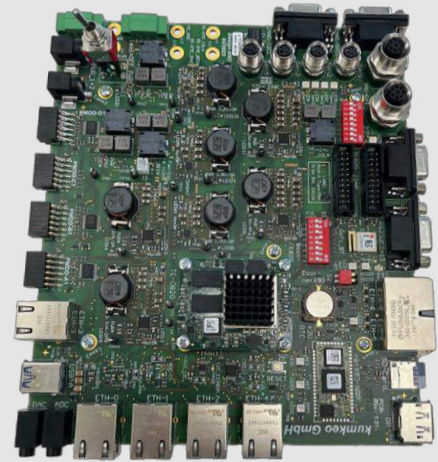


# ELMAR

## Evaluation Board

### netX 90 & Zynq® UltraScale+™

The evaluation board provides a powerful and flexible development platform for rapid-prototyping purposes and can be customized to meet the requirements in industrial environments. The combination of the Hilscher netX 90 and an AMD® Zynq® UltraScale+™ together on one PCB with high-speed interlink makes it unique.



## POWER SUPPLY, MECHANICAL DATA

<b>Nominal voltage</b>	2x 24 V DC, galvanically isolated
<b>Permissible voltage range</b>	19.2 V to 28 V DC
<b>Max. power input</b> (excl. peripheral power)	<40 W (1.7 A @24 V DC)
<b>Max. power input</b> (incl. peripheral power)	<100 W (4.2 A @24 V DC)
<b>Protection</b>	Reverse polarity and overvoltage
<b>Connector</b>	Pluggable terminal block, ø 5.5 mm/WR-TBL (AWG16-26)
<b>PCB Dimensions</b>	200 mm x 170 mm x 20 mm
<b>PCB Weight</b>	Approx. 0.2 kg
<b>Attachment</b>	Hex Spacer
<b>Enclosure</b>	on request

## CHIPSET 1

### netX 90 ARM® 32-bit Hilscher RISC microcontroller

<b>Communication</b>	Cortex®-M4 @100 MHz MPU
<b>Application</b>	Cortex®-M4 @100 MHz MPU & FPU
<b>Operating System</b>	freeRTOS or bare metal

## CHIPSET 2

### AMD® Zynq® UltraScale+™ MPSoC

<b>Processing System</b>	2x Cortex®-R5F @500 MHz* 4x Cortex®-A53 @1200 MHz*
<b>Programmable Logic</b>	192K Logic Cells* 728 DSP Slices*
<b>Operating System</b>	Linux, freeRTOS, bare metal

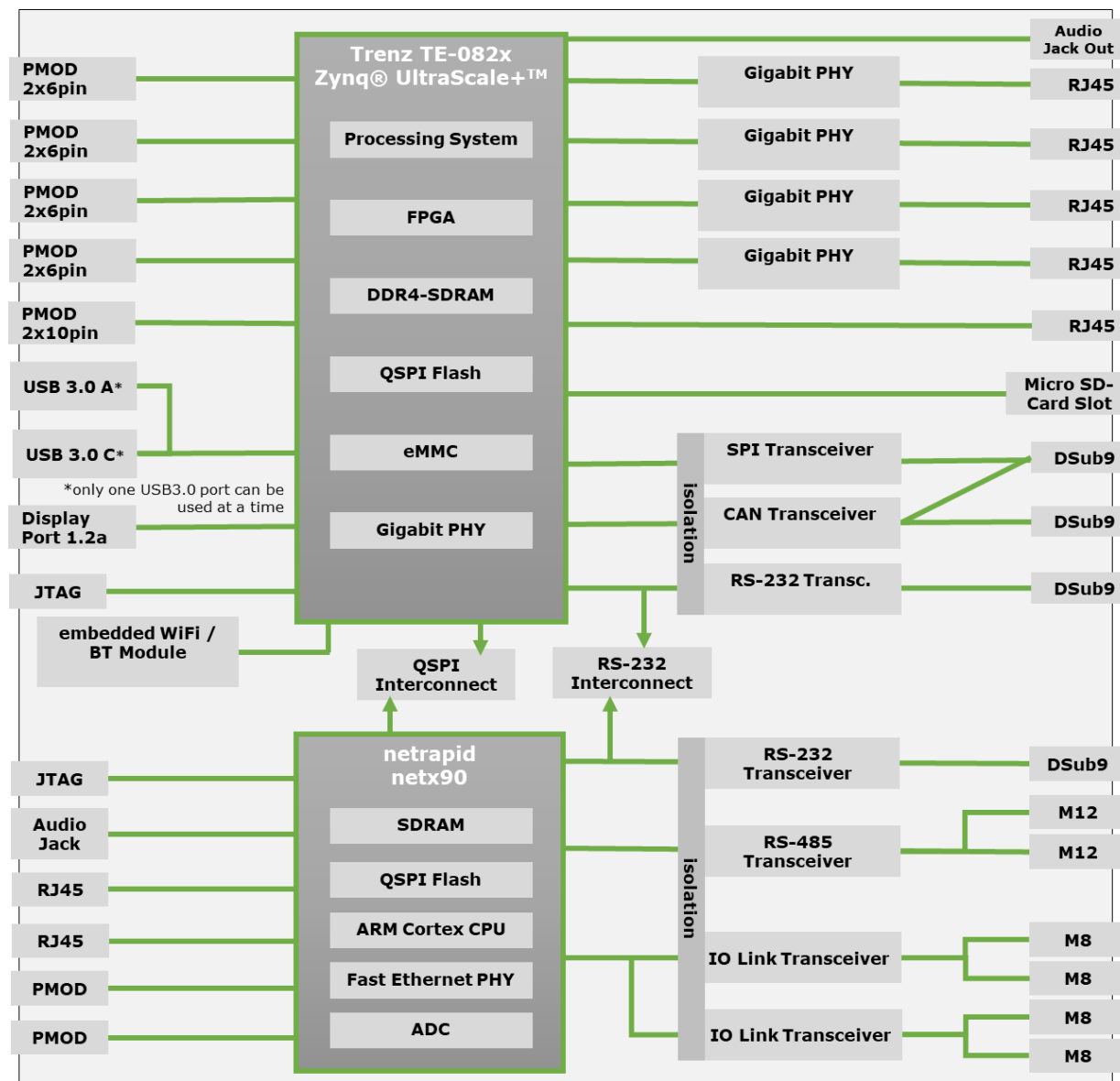
## INTERFACES netX 90

<b>Serial</b>	1x RS-232 (D-sub 9pin)
<b>PMOD</b>	2x 12 pin (2.54 mm)
<b>Encoder Interface</b>	1x BiSS-C (M12) or 1x EnDat 2.2 (M12)
<b>IO-Link Interface</b>	4x IO-Link v1.1.3 (M8)
<b>Ethernet / PROFINET</b>	2x 100 Mbps (RJ45)
<b>Device function</b>	PROFINET IO device
<b>Transfer rate</b>	100 Mbps
<b>Update rate</b>	≥1 ms (RT, adjustable)
<b>PROFINET IO version</b>	2.42 / 2.43
<b>Supported protocols</b>	SNMP, LLDP
<b>Supported MIBs</b>	MIB2
<b>Real-time class</b>	RT_CLASS_1
<b>Netload class</b>	II
<b>Conformance class</b>	B

## INTERFACES UltraScale+™

<b>Ethernet</b>	1x PS Gb RGMII Ethernet (RJ45) 4x PL Gb RGMII Ethernet (RJ45)
<b>Serial</b>	1x RS-232, 2x CAN, 1x SPI, 1x I2C, 1x USB 3.0 (A or C)
<b>PMOD</b>	4x 12 pin (2.54 mm) 1x 20 pin & 1x 12 pin (2 mm)
<b>Memory Card</b>	Micro-SD (& HW-Boot option)
<b>Wireless</b>	Wi-Fi (802.11b/g/h) Bluetooth 4.2 (2.4GHz, BR/EDR)
<b>Video</b>	DisplayPort 1.2a

## BLOCK DIAGRAM



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